GEOMORPHOLOGICAL MAPPING IN THE ADJACENT AREA TO SYOWA STATION

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Abstract: Detailed geomorphological mapping in Antarctica is in progress as examplified by the sheet Langhovde 1:25,000, near Syowa Station.

The information on the geomorphological map is divided into several groups; 1) topography (including contour lines), 2) morphometry and/or morphography, 3) subsurface materials and/or basement rocks and 4) geomorphic processes. Each morphography, such as cliffs, valley forms, breaks and steps of slopes and so on, is mapped, on the basis of the airphoto interpretation. It is most important to decide the areas presented by colors. In this case, they are 1) area of geomorphic processes such as periglacial, fluvioglacial or glacial ones and 2) area of several types of basement rocks which strongly control the relief of the studied region. Some morphographies closely related to the certain processes could be also given by the individual colors. Active geomorphic processes are indicated by the special symbols.

This geomorphological map is prepared with special reference to the methods in France and the Federal Republic of Germany. The geomorphological mapping will be continued in the other regions of Antarctica, especially in the inland mountainous region, because such map is necessary as the basic data for understanding the geomorphic development and geomorphic processes in Antarctica.

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